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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,278	04/01/2004	Ying Shen	71359.00005	8363

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EXAMINER	
YUN, EUGENE	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,278	SHEN ET AL.	
	Examiner	Art Unit	
	Eugene Yun	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) *18-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 29-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-17 and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Moerder (US 6,256,483).

Referring to Claim 1, Moerder teaches a modular wide-range microwave communications unit comprising:

a precalibrated IF module having IF circuitry (see col. 6, lines 20-25) and an IF module memory operable for storing calibration values for the IF circuitry (see col. 12, lines 13-21);

at least one precalibrated RF module having RF circuitry (see col. 6, lines 26-33) and an RF module memory operable for storing RF calibration values for the RF circuitry (see col. 12, lines 13-21).

Referring to Claim 2, Moerder also teaches the precalibrated RF module as an RF transmit module comprising an RF transmit circuitry (see col. 6, lines 26-33) and an RF transmit module memory operable for storing RF transmit calibration values for the RF transmit circuitry (see col. 12, lines 13-21).

Referring to Claim 3, Moerder also teaches the precalibrated RF

module as an RF receive module comprising an RF receive circuitry (see col. 6, lines 26-33 and line 35) and an RF receive module memory operable for storing RF receive calibration values for the RF receive circuitry (see col. 12, lines 13-21).

Referring to Claim 4, Moerder also teaches IF transmit circuitry comprising plural IF transmit attenuators, IF receive circuitry comprising plural IF receive attenuators, an IF module memory, and a processor and instructions, the processor being operably configured to execute the instructions during operation of the communications unit, being operably coupled to the IF module memory and RF module memory, the instructions comprising transmit instructions for controlling the IF transmit circuitry based on IF transmit calibration values stored in the IF module memory and controlling the IF receive circuitry based on IF receive calibration values stored in the IF module memory (see col. 21, lines 13-21).

Referring to Claim 5, Moerder also teaches a radio processing unit which comprises the precalibrated IF module and precalibrated RF module, and a signal processing unit having a modem, the signal processing unit operably coupled to the radio processing unit (see col. 6, lines 25-33).

Referring to Claim 6, Moerder also teaches plural radio processing units operably coupled via wireless communications links to other radio processing units, and plural signal processing units are operably coupled via a wireline network (see col. 5, lines 66-67 and col. 6, lines 1-12).

Referring to Claim 7, Moerder teaches a modular wide-range microwave communications unit comprising plural precalibrated modules (see col. 21, lines 13-21),

each having a module memory operable for storing calibration values for at least one of the group of transmit IF circuitry, receive IF circuitry (see col. 6, lines 20-25), transmit RF circuitry, and receive RF circuitry (see col. 6, lines 25-33).

Referring to Claim 8, Moerder also teaches an RF transmit module comprising RF transmit circuitry and an RF transmit module memory operable for storing RF transmit calibration values for the RF transmit circuitry (see col. 21, lines 13-21).

Referring to Claim 9, Moerder also teaches the RF transmit circuitry comprising an attenuator (see col. 15, lines 56-59), an IF detector and an RF detector 84 (fig. 5), and the RF transmit module memory is operable for storing calibration values for the attenuator and IF and RF detectors (see col. 21, lines 13-21).

Referring to Claim 10, Moerder also teaches one of the plural precalibrated modules is an RF receive module comprising an RF receive circuitry and an RF receive module memory operable for storing RF receive calibration values for the RF receive circuitry (see col. 21, lines 13-21).

Referring to Claim 11, Moerder also teaches the RF receive circuitry comprising an attenuator (see col. 15, lines 56-59) and the RF receive module memory is operable for storing calibration values for the attenuator (see col. 21, lines 13-21).

Referring to Claim 12, Moerder also teaches one of the plural precalibrated modules as an IF module comprising IF transmit circuitry and IF receive circuitry, an IF module memory (see col. 6, lines 20-25), and a processor and instructions, the processor being operably configured to execute the instructions and be operably coupled to each module memory, the instructions comprising transmit instructions for

controlling the IF transmit circuitry and receive instruction for controlling the IF receive circuitry based on IF transmit calibration values and IF receive calibration values stored in the IF module memory (see col. 21, lines 13-21).

Referring to Claim 13, Moerder also teaches an RF transmit module and an RF receive module (see col. 6, lines 25-33), the RF transmit module comprising RF transmit circuitry including an attenuator (see col. 15, lines 56-59), an IF detector and an RF detector 84 (fig. 5), and an RF transmit module memory operable for storing RF transmit calibration values for the RF transmit circuitry, and the RF receive module comprising RF receive circuitry including a first receive attenuator and an RF receive module memory operable for storing RF receive calibration values for the first receive attenuator (see col. 21, lines 13-21).

Referring to Claim 14, Moerder also teaches the IF transmit circuitry comprising a first digital attenuator coupled to a first analog attenuator, a first mixer coupled to the first analog attenuator, a second analog attenuator coupled to the first mixer, a second digital attenuator coupled to the second analog attenuator, and a transmit IF AGC coupled between the first digital and first analog attenuators (see col. 15, lines 49-59), and wherein the instructions are operable for controlling attenuation by the attenuators of the IF transmit circuitry and RF transmit circuitry based on the IF and RF transmit calibration values (see col. 21, lines 13-21).

Referring to Claim 15, Moerder also teaches the IF receive circuitry comprises a receive RSSI detector operably coupled to plural receive attenuators, the plural receive attenuators operably coupled to a second mixer, the second mixer operably coupled to

a further attenuator (see col. 15, lines 49-59), and the further attenuator coupled to a receive AGC detector, and wherein the instructions are operable for controlling attenuation by the attenuators of the IF receive circuitry and RF receive circuitry based on the IF and RF receive calibration values (see col. 21, lines 31-21).

Referring to Claim 16, Moerder also teaches a radio processing unit which comprises the precalibrated IF module and precalibrated RF module, and a signal processing unit having a modem, the signal processing unit operably coupled to the radio processing unit (see col. 6, lines 25-33).

Referring to Claim 17, Moerder also teaches plural radio processing units operably coupled via wireless communications links to other radio processing units, and plural signal processing units are operably coupled via a wireline network (see col. 5, lines 66-67 and col. 6, lines 1-12).

Referring to Claim 29, Moerder teaches a precalibrated IF module operable in a modular wide-range microwave transceiver, the IF module comprising:

transmit IF circuitry and receive IF circuitry, and an IF module memory for storing IF calibration values for transmit and receive IF circuitry (see col. 21, lines 13-21);

a processor and instructions, the processor being operably configured to execute the instructions and coupled to the IF module memory, and a RF transmit module memory and RF receive module memory (see col. 6, lines 13-19), the instructions comprising:

transmit instructions for controlling the transmit IF circuitry and circuitry of the RF transmit module based on the IF calibration values and RF transmit calibration

values, and receive instructions for controlling the receive IF circuitry and circuitry of the RF receive module based on the IF calibration values and RF receive calibration values (see col. 4, lines 48-58).

Referring to Claim 30, Moerder teaches a precalibrated RF module operable in a modular wide-range microwave transceiver, the RF module comprising one of the group of:

A precalibrated RF transmit module having an RF transmit module memory for storing RF transmit calibration values for circuitry of the RF transmit module (see col. 6, lines 26-33), wherein the RF transmit module is operable together with a precalibrated transmit IF module having transmit IF circuitry, a transmit IF module memory for storing transmit IF calibration values for the transmit IF circuitry, and a transmit processor and instructions (see col. 6, lines 20-25), the processor being operably configured to execute the instructions when coupled to the transmit IF module memory and RF transmit module memory, the instructions comprising transmit instructions for controlling the transmit IF circuitry and circuitry of the RF transmit module based on the transmit IF calibration values and RF transmit calibration values (see col. 21, lines 13-21); and

A precalibrated RF receive module having an RF receive module memory for storing RF receive calibration values for circuitry of the RF receive module (see col. 6, lines 26-33), wherein the RF receive module is operable together with a precalibrated receive IF module having receive IF circuitry, an receive IF module memory for storing receive IF calibration values for the receive IF circuitry, and a receive processor and instructions (see col. 6, lines 20-25), the processor being operably configured to

execute the instructions when coupled to the receive IF module memory and RF receive module memory, the instructions comprising receive instructions for controlling the receive IF circuitry and circuitry of the RF receive module based on the receive IF calibration values and RF receive calibration values (see col. 21, lines 13-21).

Referring to Claim 31, Moerder also teaches a precalibrated IF module comprising the precalibrated transmit IF module and precalibrated RF module, wherein an IF module memory forms both the transmit and receive IF module memories (see col. 6, lines 20-25), and an IF module processor forms both the transmit and receive processors (see col. 21, lines 13-21).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Yun
Examiner
Art Unit 2682

EY

Matthew D. Anderson
Supervisory Patent Examiner